



344/1/050

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT : Jörg SCHWARZBICH

SERIAL NO.: 10/087,456

FILED : MARCH 1, 2002

FOR : METHOD OF PRODUCING A LORDOSIS SUPPORT

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Richard M. Goldberg
(Name of Registered Representative)
and person mailing

Richard M. Goldberg MAY 24,
(Signature and Date) 2002

PRELIMINARY AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

Dear Sir:

Prior to examination of the above-identified application, please amend the same as follows:

IN THE SPECIFICATION:

The following amendments do not count blank lines in the line numbering.

Page 1, after the title and before line 1, insert the following heading:

BACKGROUND OF THE INVENTION

Page 2, between lines 3 and 4, insert the following

heading: SUMMARY OF THE INVENTION

cancel the paragraph at lines 14-15 in its
entirety.

Page 4, between lines 24 and 25, insert the following

heading:

BRIEF DESCRIPTION OF THE DRAWINGS

Page 6, between lines 3 and 4, insert the following

heading: DETAILED DESCRIPTION

Page 8, cancel the paragraph at lines 4-16, and in place
thereof, substitute the following new paragraph:

The longitudinal grooves 14' are expanded at places into templates 50, to which in each case one bending tool 52 is assigned. Initially, the longitudinal rods 14 are introduced axially in a state, in which they are not bent, into the longitudinal grooves 14'. Alternatively, the longitudinal rods, like the transverse rods 16, 18, can be supplied as endless material against a stop and then cut to length in the mold. Subsequently, the bending tools 52 are pulled to the outside so that the bends 20 are formed in the longitudinal rods 14. The bending tools 52, which

are assigned to the same longitudinal groove 14', are preferably actuated consecutively, so that the longitudinal rods 14 can be shifted axially in the longitudinal grooves 14' during the bending process, in order to compensate for the additional material required due to the bending processes 20. Subsequently the ends of the longitudinal rods 14 are bent in the manner shown in Figure 1. Alternatively, this can also be accomplished with the help of bending tools, which are integrated in the lower part 42 of the mold.

IN THE CLAIMS:

Page 13, line 1, before claim 1, change "CLAIMS" to
WHAT IS CLAIMED IS:

Amend claims 1 and 2, and add new claims 15-26, as follows:

1. (Amended) A method of producing a lordosis support with a supporting element of plastic of adjustable curvature at rods of a lattice mat, formed by longitudinal and transverse rods, comprising the steps of:

introducing the rods into an injection mold for the supporting element, and

embedding the rods in the supporting element during injection molding of the supporting element.

2. (Amended) The method of claim 1, wherein the step of embedding includes the step of encapsulating at least some of the rods by molding with the plastic of the supporting element.

15. (New) The method of claim 1, wherein the step of introducing includes the steps of:

introducing the transverse rods in transverse grooves of the injection mold, and

pushing ends of the transverse rods against a stop which is formed in the injection mold.

16. (New) The method of claim 15, further comprising the steps of:

supplying the transverse rods as endless material, and cutting off the transverse rods, when the transverse rods are fixed in contact with the stop in the injection mold, on a side of the injection mold opposite the stop, with one edge of the injection mold being used as cutting edge.

17. (New) The method of claim 1, wherein the step of introducing includes the step of introducing both the transverse rods as well as the longitudinal rods of the lattice mat into the injection mold and further comprising the step of connecting together the transverse rods and longitudinal rods in the injection mold.

18. (New) The method of claim 17, wherein the step of introducing includes the step of pushing the longitudinal rods into longitudinal grooves of the injection mold as straight rod endless material.

19. (New) The method of claims 18, further comprising the step of bending the longitudinal rods in the injection mold, with a portion of the injection mold functioning as a bending template.

20. (New) The method of claim 18, further comprising the step of gating plastic parts to the longitudinal rods of the lattice mat.

21. (New) The method of claim 20, wherein at least some of said plastic parts are casings for connecting regions between the longitudinal rods and the transverse rods.

22. (New) The method of claim 20, wherein at least some of the plastic parts are anchoring sites for tension springs, which are to be suspended from the longitudinal rods.

23. (New) The method of claim 20, wherein the plastic parts are injection molded in one step with the supporting element.

24. (New) The method of claim 17, wherein the step of connecting together includes the step of welding the transverse rods to the longitudinal rods.

25. (New) The method of claim 17, wherein the step of connecting together includes the step of fastening the transverse rods to the longitudinal rods by bending ends of the transverse rods around the longitudinal rods into one of eyelets and hooks.

26. (New) A method for producing an initiating element for active head supports of a vehicle seat, for which a functioning part of plastic is fastened to rods of a lattice mat, which is formed by longitudinal and transverse rods, comprising the steps of:

introducing the rods into an injection mold for the functioning part, and

embedding the rods in this functioning part during the injection molding of the functioning part.

R E M A R K S

Claims 1, 2 and 15-26 are now in this application, and are presented for the Examiner's consideration.

The claims have been amended to provide proper antecedent basis, positively recite the elements, start each step with an active verb, and eliminate the numerals. It is noted that new claims 15-26 correspond to canceled claims 3-14 as originally filed.

In addition, the claims have been amended to eliminate any multiple dependencies.

A marked-up copy of the amendments to the claims is attached hereto.

In addition, the specification has been amended to add headings and to correct one error. A marked-up copy of the amended portions of the specification is also enclosed.

Further, Fig. 14 has been amended, as indicated in red on the attached copy thereof, to change numeral "86" to numeral --80--.

The Examiner is requested to approve this drawing change.

A separate letter is also enclosed which requests approval of this drawing change.

Also enclosed are new formal drawings of Figs. 1-16, which includes this amendment to Fig. 14.

Please charge any additional fees incurred by this Preliminary Amendment, or credit any overpayment, to Deposit

Account No. 07-1524.

It is hoped that this Preliminary Amendment will facilitate an examination of the application on its merits.

Respectfully submitted,



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Enclosure: MARKED-UP AMENDMENTS TO SPECIFICATION
MARKED-UP AMENDMENTS TO CLAIMS

MARKED-UP AMENDMENTS TO SPECIFICATION

The following amendments do not count blank lines in the line numbering.

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Page 8, cancel the paragraph at lines 4-16, and in place thereof, substitute the following new paragraph:

The longitudinal grooves 14' are expanded at places into templates 50, to which in each case one bending tool 52 is assigned. Initially, the longitudinal rods 14 are introduced axially in a state, in which they are not bent, into the

longitudinal grooves 14'. Alternatively, the longitudinal rods, like the transverse rods 16, 18, can be supplied as endless material against a stop and then cut to length in the mold. Subsequently, the bending tools 52 are pulled to the outside so that the bends 20 are formed in the longitudinal rods 14. The bending tools 52, which are assigned to the same longitudinal groove 14', are preferably actuated consecutively, so that the longitudinal rods 14 can be shifted axially in the longitudinal grooves 14' [14] during the bending process, in order to compensate for the additional material required due to the bending processes 20. Subsequently the ends of the longitudinal rods 14 are bent in the manner shown in Figure 1. Alternatively, this can also be accomplished with the help of bending tools, which are integrated in the lower part 42 of the mold.

MARKED-UP AMENDMENTS TO CLAIMS

1. (Amended) A method of producing a lordosis support [(12)] with a supporting element [(22)] of plastic of adjustable curvature at rods [(18)] of a lattice mat [(10)], formed by longitudinal and transverse rods [(14, 16, 18)], [wherein] comprising the steps of:

introducing the rods [(14, 16, 18)] are introduced] into an injection mold [(42, 44)] for the supporting element, [(22)] and[,]

embedding the rods in the supporting element during [the] injection molding of the supporting element [(22)], are embedded in the latter].

2. (Amended) The method of claim 1, wherein the step of embedding includes the step of encapsulating at least some of the rods [(14, 16, 18)] are encapsulated] by molding with the plastic of the supporting element [(22)].

15. (New) The method of claim 1, wherein the step of introducing includes the steps of:

introducing the transverse rods in transverse grooves of the injection mold, and

pushing ends of the transverse rods against a stop which is formed in the injection mold.

16. (New) The method of claim 15, further comprising the

steps of:

supplying the transverse rods as endless material, and cutting off the transverse rods, when the transverse rods are fixed in contact with the stop in the injection mold, on a side of the injection mold opposite the stop, with one edge of the injection mold being used as cutting edge.

17. (New) The method of claim 1, wherein the step of introducing includes the step of introducing both the transverse rods as well as the longitudinal rods of the lattice mat into the injection mold and further comprising the step of connecting together the transverse rods and longitudinal rods in the injection mold.

18. (New) The method of claim 17, wherein the step of introducing includes the step of pushing the longitudinal rods into longitudinal grooves of the injection mold as straight rod endless material.

19. (New) The method of claims 18, further comprising the step of bending the longitudinal rods in the injection mold, with a portion of the injection mold functioning as a bending template.

20. (New) The method of claim 18, further comprising the step of gating plastic parts to the longitudinal rods of the

lattice mat.

21. (New) The method of claim 20, wherein at least some of said plastic parts are casings for connecting regions between the longitudinal rods and the transverse rods.

22. (New) The method of claim 20, wherein at least some of the plastic parts are anchoring sites for tension springs, which are to be suspended from the longitudinal rods.

23. (New) The method of claim 20, wherein the plastic parts are injection molded in one step with the supporting element.

24. (New) The method of claim 17, wherein the step of connecting together includes the step of welding the transverse rods to the longitudinal rods.

25. (New) The method of claim 17, wherein the step of connecting together includes the step of fastening the transverse rods to the longitudinal rods by bending ends of the transverse rods around the longitudinal rods into one of eyelets and hooks.

26. (New) A method for producing an initiating element for active head supports of a vehicle seat, for which a functioning part of plastic is fastened to rods of a lattice mat, which is formed by longitudinal and transverse rods, comprising the steps

of:

introducing the rods into an injection mold for the functioning part, and

embedding the rods in this functioning part during the injection molding of the functioning part.